



PATENT ABSTRACTS OF JAPAN

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(72) Inventor: **NIIBE AKITOSHI****(54) NONFLAMMABLE SURFACE HEATING ELEMENT****(57) Abstract:**

PROBLEM TO BE SOLVED: To provide a non-flammable surface heating element and a surface controller which control temperature before a resistor and other surrounding materials catch fire and get carbonized.

SOLUTION: This invention features a structure which is highly practical, light and less expensive and perfectly detects and controls an abnormal temperature. Firstly a plastic 2 facing a resistor 1 is made of a material which melts at 100°C-130°C. Secondly a material for a nonflammable surface controller 3 is nonwoven paper and nonwoven fabric into which nonflammable agent easily permeates, so that even if sulfamic acid ammonium used for nonflammable liquid evaporates,

moisture in the air can be easily and evenly absorbed. Even if silicon is used, it is lubricative, but not insulative and when a nonflammable material only contacts one point of the resistor, electric current is guided into the whole controller. This invention features that plastic contacting the surface of the resistor melts at 100°C-130°C and when only part of it loses its insulating property, leak current flows into a nonflammable material instantly and an electric source is interrupted with a controller by way of a lead wire.

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